

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on May 23, 2003, and the references cited therewith.

Claims 6, 10, and 15, are amended, claim 23 (second instance) is canceled, and claims 25-28 are added; as a result, claims 1-28 are now pending in this application.

Abstract

The abstract is objected to due to informalities. A new copy of the abstract is provided herein on a separate page, as requested. Withdrawal of the objection is respectfully requested.

§112 Rejection of the Claims

Claim 23 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The second instance of a claim numbered 23 is cancelled, and is added as new claim 25. Withdrawal of the rejection is respectfully requested.

§102 Rejection of the Claims

Claims 1-3 and 6-9 were rejected under 35 USC § 102(b) as being anticipated by Keil (U.S. 6,134,975). Applicant respectfully traverses. Keil describes a transparent dummy part 1 that is used to simulate a real part (not shown) in placement on a glass testing board (not shown) that is substituted for a real PC board during the simulation of placing parts on the PCB. That is to say, glass testing elements (parts) are placed in a glass testing board to simulate placing real parts on a real PCB. See column 1 line 48-58. The glass dummy part has fiducial markings that are aligned to fiducials on the glass testing board. See column 3 lines 23-26. There is no mention of dies, but rather SMD or other electronics components, which are simulated by the transparent testing element (the simulated part). Keil describes a glass or transparent testing board, not a panel having transparent segments.

Thus, regarding claim 1 of the present invention, the fiducial markings 3 on the testing element 1 of Keil are to align towards or with fiducials that are on the testing board, and are not "a plurality of spaced apart fiducials formed on the upper surface at locations corresponding to

desired die locations.” In contrast, claim 1 of the present application is directed to a glass plate having fiducials corresponding to die locations (each location that a die will be placed). Accordingly, claim 1 and its dependent claims appear to be in condition for allowance. Reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claim 6, which has been amended solely to clarify antecedent basis and not in response to any cited reference, there is no indication in Keil of “a transparent plate having fiducials on a surface, the transparent plate adapted to be positioned beneath a panel having a plurality of transparent segments so that a die suspended above the panel and having a die alignment mark can be aligned and positioned on one of the transparent segments relative to at least one of the fiducials.” Keil describes placing small individual testing elements on one side of a glass testing board at the column 3 lines 19-31 section cited by the Examiner. There is no indication of anything being placed on the opposite side of the testing board (which is not a panel having transparent segments as described in the present application), much less having a die suspended above the panel being aligned and positioned on a transparent segment of the panel. Accordingly, claim 6 and its dependent claims appear to be in condition for allowance. Reconsideration and withdrawal of the rejection is respectfully requested.

§103 Rejection of the Claims

Claim 9 was rejected under 35 USC § 103(a) as being unpatentable over Keil in view of Woodhouse (U.S. 5,537,204). Applicant respectfully traverses. As described above, Keil describes a transparent dummy part 1 that is used to simulate a real part in placement on a glass testing board that is substituted for a real PC board during the simulation of placing parts on the PCB. For the reasons described above for claim 6, this dependent claim appears in condition for allowance. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 4, 5, 10-13 and 15-19 were rejected under 35 USC § 103(a) as being unpatentable over Keil in view of Kwong (U.S. 6,487,083). Applicant respectfully traverses. Keil is described above. For the reasons described above for claim 1, dependent claims 4 and 5 appear in condition for allowance. Reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claim 10, Keil has no concept of a panel having cavities. Kwong has no concept of cavities with transparent bottoms, but rather describes cavities that expose underlying wiring levels so that vertical vias are not needed. The Examiner mischaracterizes column 10 lines 10-30 as allegedly saying a glass panel should have an array of cavities because it aides placement of parts, when what Kwong says is that glass reinforced (i.e., fiberglass-reinforced epoxy or resin) PCBs are not easily etchable, and thus might need precision milling by laser ablation. There is no indication of transparency. The cavities are provided to avoid vertical vias in the PCB connection to parts. Claim 10 is amended to clarify, and further distinguish from the cited references. Claim 10 clearly distinguishes over the cited references, and it and its dependent claims appear to be in condition for allowance, and reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claim 15, Keil has no concept of a panel having cavities. Kwong has no concept of cavities with transparent bottoms, but rather describes cavities that expose underlying wiring levels so that vertical vias are not needed. Neither reference nor any combination provides the method recited in claim 15. Claim 15 has been amended solely to correct antecedent basis, and not in response to any cited reference. Claim 15 clearly distinguishes over the cited references, and it and its dependent claims appear to be in condition for allowance, and reconsideration and withdrawal of the rejection is respectfully requested.

New means-plus-function claims 26-28 are added to further define the claimed invention.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6949) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Fee Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 23 day of July, 2003.

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